

A NEW SPECIES OF *CONUS* FROM SOUTHEASTERN FLORIDA (MOLLUSCA: GASTROPODA)

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Abstract.—A new species of *Conus* from southeastern Florida, *Conus flamingo*, is described. The preferred habitat of the new species is given and comparisons are made to the closely related species *Conus ampliurgus* Dall, 1889, and *C. flavescens* Sowerby, 1834.

As recently as 1971, a new gastropod, *Conus patae*, was described by R. T. Abbott as coming from offshore of southeastern Florida. It seemed remarkable that such a distinctive American species could have remained undescribed until such a late date. Since the description of *Conus patae*, dredging trips undertaken by several amateur malacologists along the south coast of Florida have brought to light yet another new species of *Conus*. This addition to the Florida mollusk fauna is described here.

Abbreviations: USNM—United States National Museum Collection (now National Museum of Natural History); UMML—Invertebrate Museum Collection of the Rosenstiel School of Marine and Atmospheric Science, University of Miami.

Family—Conidae

Genus—*Conus* Linnaeus, 1758

Conus flamingo, new species

Fig. 1

Material examined.—*Holotype*—Length 19.4 mm, width 9.5 mm, 45.7 m depth off Dania, Broward County, Florida, Oct. 1975, USNM 780663. *Paratypes*—Length 18.4 mm, 30.5 m depth off Dania, USNM 773413; length 16.8 mm, 121.9 m depth off Palm Beach, Florida, July 1977, USNM 781994; length 20 mm, 45.7 m depth off Dania, Oct. 1975, USNM 780664; length 14 mm, UMML 8174.

Shell description.—15–20 mm adult shell length, elongate with elevated spire; shoulder smooth with sharply raised edge; body whorl smooth, silky, with faintly raised cords near anterior end; spire whorls smooth; color bright cherry red to reddish-orange with varying amounts of white patterning—ranging from scattered, crescent-shaped white patches around mid-body (as in holotype) to large white zig-zags running entire length of shell; spire red with regularly-spaced white patches that extend over shoulder angle onto

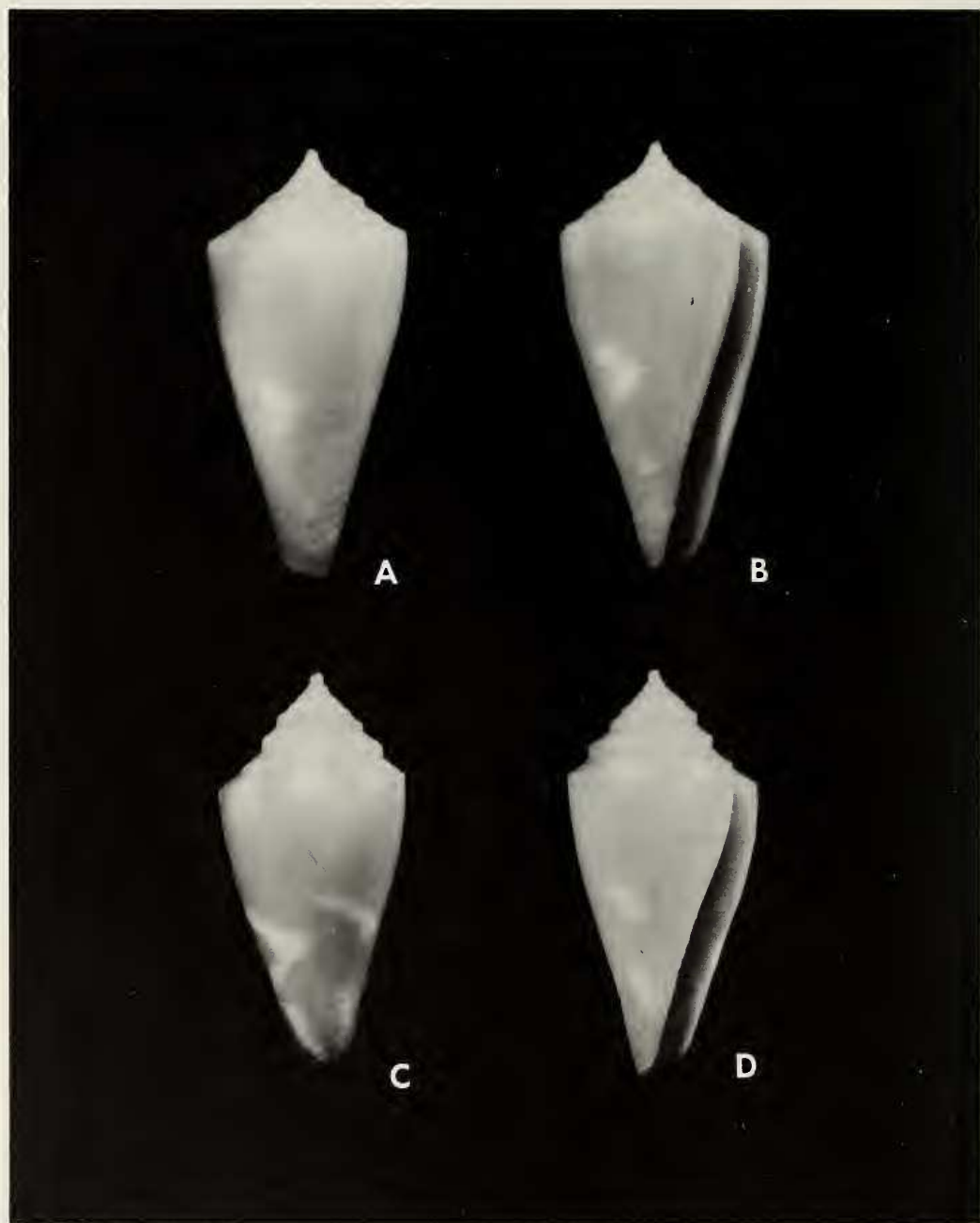


Fig. 1. *Conus flamingo*: A, Dorsal aspect of holotype; B, Ventral aspect of holotype; C, Dorsal aspect of paratype length 18.4 mm; D, Ventral aspect of same specimen.

body whorl; interior of aperture red; protoconch very large, protracted, mamillate; periostracum thin, yellowish, translucent.

Description of animal.—Body and siphon color uniform pale amber; eyes black; operculum tiny, oval.

Type-locality.—45.7 m depth off Dania, Broward County, Florida.

Distribution.—At present known from 45.7–121.9 m depth, from Palm Beach to Dania, Florida.

Ecology.—The new species prefers sand and shell gravel-rubble bottoms at depths of 45.7–121.9 m. Other gastropods found with the new species include: *Conus ampliurgus* Dall, 1889 (+*Conus juliae* Clench, 1942) (Walls, 1979, p. 91), *Scaphella junonia* (Lamarck, 1804), *Scaphella gouldiana* (Dall, 1887), *Mitra antillensis* Dall, 1889, *Mitra straminea* A. Adams, 1853, *Murex bellegladensis* E. H. Vokes, 1963, *Chicoreus mergus* E. H. Vokes, 1974, *Phyllonotus oculatus* (Reeve, 1845), *Distorsio mcgintyi* Emerson and Puffer, 1953, *Polystira tellea* (Dall, 1889), *Callistoma psyche* Dall, 1889, and *Antillophos candei* (d'Orbigny, 1842).

Etymology.—Named for the tropical bird (flamingo, *Phoenicopterus* sp.) whose plumage coloration closely approximates the rather startling and characteristic shell color of the new species. The name is proposed as a noun.

Remarks.—Only two other Florida cones could possibly be confused with *Conus flamingo*; these are *C. ampliurgus* and *C. flavescens* Sowerby, 1834. Young specimens of *C. ampliurgus* (Clench, 1942, p. 26 as *C. juliae*; Walls, 1979, p. 89, bottom 2 figures), though often bright red like *C. flamingo*, always have rows of dark-colored dots around the body whorl (Abbott, 1974, no. 2782), a character totally lacking in the new species at any age. *Conus ampliurgus* has a wider shoulder, lacks the mamillate protoconch of *C. flamingo*, and has a larger adult shell length (av. 50 mm). *Conus flavescens* has a mammillate protoconch like the new species (Clench, 1942:23), but the protoconch is larger and more exerted. The coloring of *C. flavescens* is always in shades of yellow, pale brown, pale orange, or white, and often with a pattern of brown dots, dashes, and flammules. This type of color pattern is quite different from the solid bright red color and white crescents and zig-zags of *C. flamingo*. The colors of the living animals also help in separating the 3 species: *Conus flavescens* has a white animal, *C. ampliurgus* a bright orange-red animal, and *C. flamingo* an amber-colored animal.

Conus flamingo is the newest member of a species complex comprising *C. ampliurgus*, *C. flavescens*, *C. caribbaeus* Clench, 1942, *C. attenuatus* Reeve, 1844(+*C. ustickei* Miller in Usticke, 1959 Walls, 1979:147), and *C. daucus* Hwass, 1792. In Florida, the new species is sympatric only with *C. ampliurgus*. *Conus attenuatus*, *C. caribbaeus*, *C. flavescens* and *C. daucus* are often found together in shallow water back reef areas; some, like *C. daucus* and *C. flavescens*, are occasionally found in only a few centimeters of water near *Thalassia* beds. *Conus flamingo* and *C. ampliurgus*, on the other hand, are known to occur only offshore in fairly deep water.

Lozet and Petron (1977, no. 191a) illustrate in color a specimen of *C. flamingo*, but misidentify it as a variety of "*C. juliae*." *Conus drezi* S. E. Hoerle, 1976 (Hoerle, 1976, plate 5, figs. 1a–1c), of the middle Miocene Shoal River Formation, Florida, is the earliest known member of the above-mentioned species complex and may possibly be the direct ancestor.

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